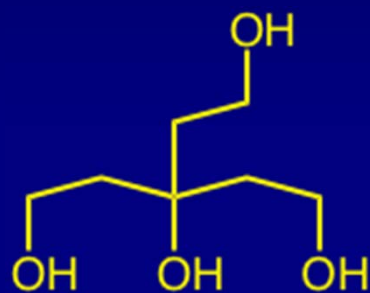
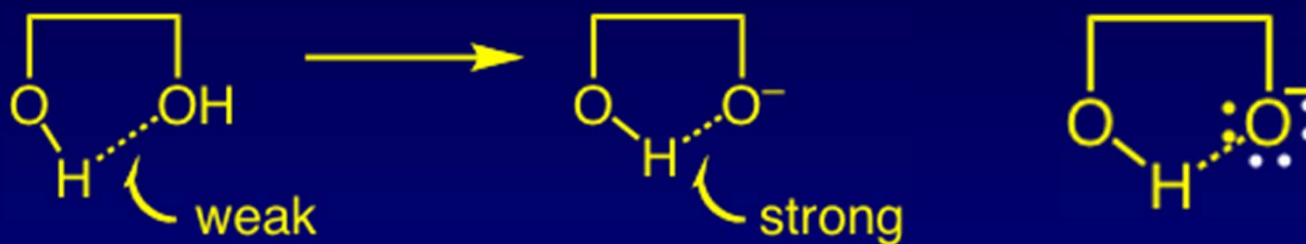
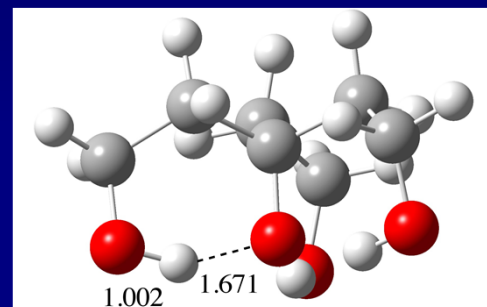


How Do Intramolecular Hydrogen Bonds Affect Acidities and Basicities?

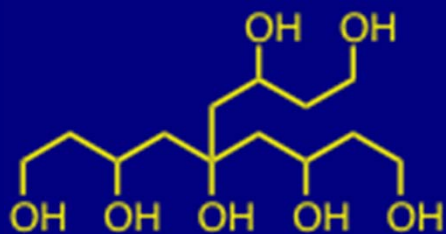
Steven R. Kass, Department of Chemistry, University of Minnesota
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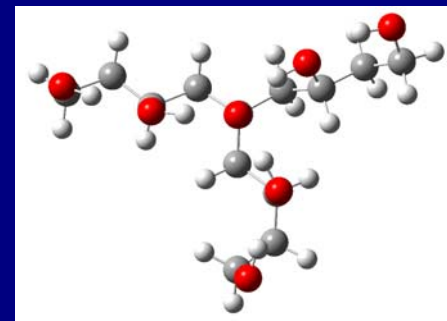
$\text{pK}_a = 16.1$
(DMSO)



$\Delta H^\circ_{\text{acid}}(\text{tetraol}) = \Delta H^\circ_{\text{acid}}(\text{HCl}), \text{EA}(\text{HOCH}_2\text{CH}_2)_3\text{CO} > \text{EA}(\text{Cl})$



$\text{pK}_a = 11.4$
(DMSO)



$\Delta H^\circ_{\text{acid}}(\text{heptaol}) = \Delta H^\circ_{\text{acid}}(\text{HI}), \text{EA}(\text{HOCH}_2\text{CH}_2)_3\text{CO} > \text{EA}(\text{NO}_3) \text{ \& \ } \text{EA}(\text{ClO}_3)$